2019 T@G TRAILER MANUAL

nüCamp

PLEASANT VALLEY TEARDROP TRAILERS

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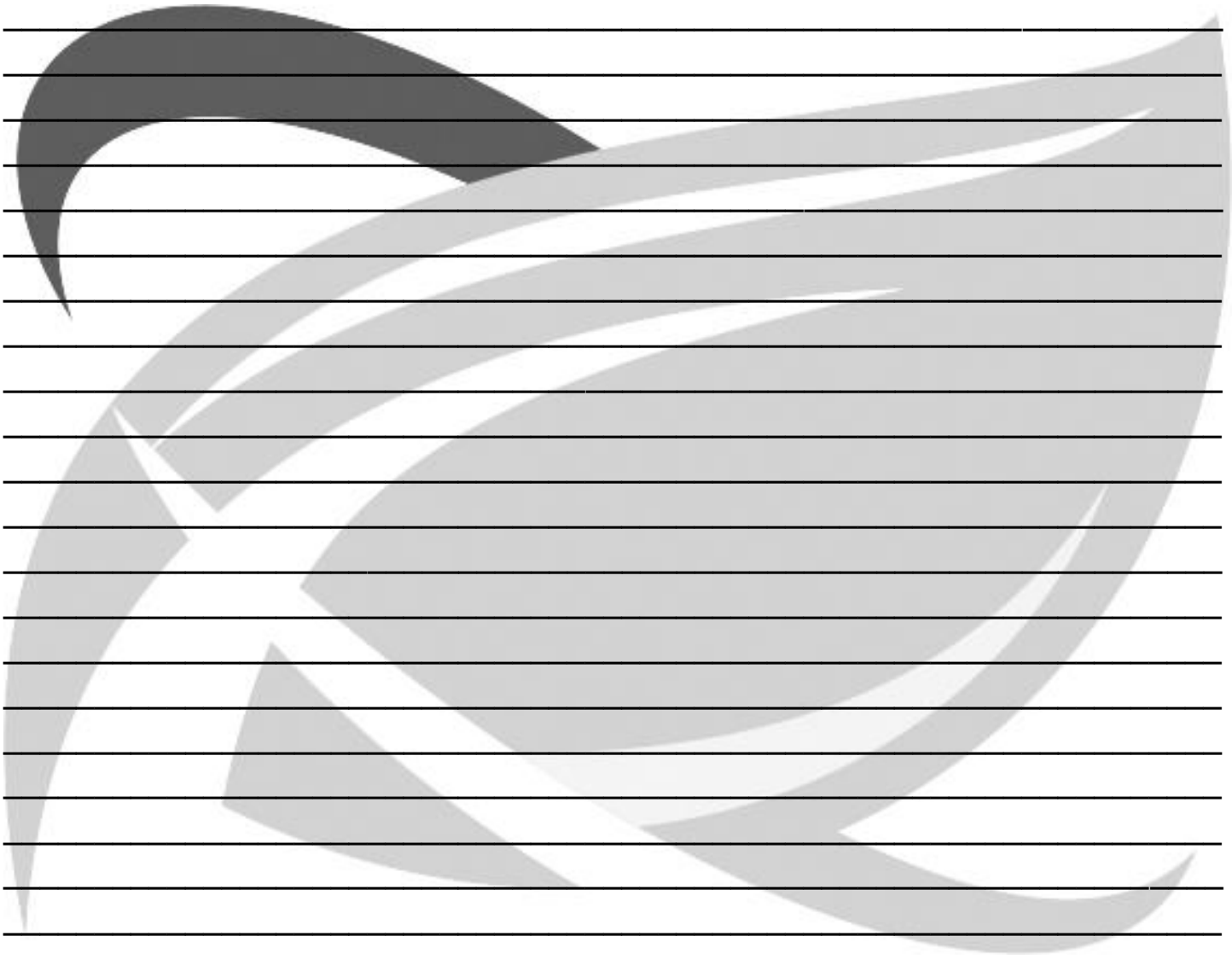
T@G Owner’s Manual

nüCamp RV

Contents

NOTES



INTRODUCTION

The Owner's Manual for your new T@G trailer is designed to respond to the most frequent inquiries regarding the operation, function, and care of the many systems that make modern trailering a joy.

nüCamp RV realizes our customers possess varying degrees of expertise in repairing and maintaining the appliances in their trailer. For this reason, the service information found in this manual is directed toward those with average mechanical skills.

We also realize that you may be more familiar with one area than you are with another. Only you know your capabilities and limitations. We want you to use this manual and hope you will find the information contained in it useful. However, should you ever feel that you may need assistance, please consult your nüCamp RV dealer for advice on repairs that may be required.

A brief explanation of the operation on the appliances such as refrigerator, Alde, and others, are explained in this manual. However, you will also find the manufacturer's information, supplied in a packet included with this manual, to be more detailed.

All information, illustrations, and specifications contained in this manual are based on the latest product information available at the time of publication approval. If new materials and production techniques are developed that can improve the quality of its product, or material substitutions are necessary due to availability, nüCamp RV reserves the right to make such changes.

We have provided many important safety messages in this manual. Always read and obey all safety messages.

WARNING

A warning is used for a hazardous situation which, if not avoided, could result in death or serious injury to persons.

CAUTION

A caution is used to advise caution when performing actions that could result in minor or moderate injury to persons and/or damage to equipment.

NOTE

A note is used to address practices not related to personal injury. This applies to hazardous situations involving property damage only.

Optional items may be available on all, or models. Additionally, some optional items can only be included during the manufacturing phase and cannot later be added to the trailer.

The inclusion of optional items information in this manual does not imply or suggest the availability, application suitability, or inclusion for any specific unit.

Safety

Safety Precautions

Many things can be construed as safety related, but the most important is your common sense. If you are careless with matches, cigarettes, flammable material, or any other hazardous material, you surely realize your potential for accidents is greatly increased.

You will find many safety recommendations in this section and throughout the manual. The following recommendations are the ones we consider to be the most important.

Appliances and Equipment

The appliances (stove, refrigerator, etc.) can be operated on LP gas. LP gas is flammable and is contained under high pressure. Improper use may result in a fire and/or explosion. Make sure to follow all instructions and warnings in this manual as well as those in the specific owner's manuals of the appliances and equipment.

Mold

Mold and mold spores exist throughout indoor and outdoor environments. There is no practical way to eliminate all mold and mold spores in the outdoor environment, however, the way to control indoor mold growth is to control moisture.

Tire Safety

Properly maintained tires improve stopping, traction, and load-carrying capability of your vehicle. Refer to page 33 - Maintenance for tire care and safety information. Also, be sure to read the Tire Safety Manual Addendum included with your owner's packet

Lug Nut Torquing

Making sure lug nuts on trailer wheels are tight and properly torqued is an important responsibility that trailer owners and users need to understand and practice. Inadequate and/or inappropriate wheel nut torque (tightness) is a major cause of lug nuts loosening in service. Loose lug nuts can rapidly lead to a wheel separation resulting in potentially serious safety consequences. See torque pattern in page 34.

Towing and Weight Distribution

Weight distribution is an important factor when loading your travel trailer. A camper with the cargo distributed properly will result in efficient, trouble-free towing. Refer to page 28 - Towing for more information.

Control Sway

Sway or fishtailing is the sideways action of a trailer caused by external forces. Excessive sway of your trailer can lead to the rollover of the trailer and tow vehicle, resulting in serious injury or death. Refer to page 29 - Towing for more information.

Smoke Alarm

A smoke detector is provided with your trailer. A manual pertaining to the detector is included in the paper work given to you at the dealership. Please read and follow all care, maintenance, and safety information contained in the smoke alarm manual.

The smoke alarm will beep once a minute for at least 30 days when the battery is weak. The battery must immediately be replaced with a fresh one.

WARNING

Check your alarm for proper battery installation. To activate battery install included battery to proper orientation.

WARNING

Smoke alarms have a limited life. The unit should be replaced immediately if it is not operating properly. You should always replace a smoke alarm after 10 years from the date of purchase. Write the purchase date on the space provided on the back of unit.

Carbon Monoxide Alarm

Carefully read and understand the contents of the provided instruction manual before using the alarm.

Store the manual in a safe place for future reference. Pay attention to the safety warnings. Pass the manual on to any subsequent users of the alarm.

WARNING

Failure to replace this product by the "REPLACE BY DATE" printed on the alarm cover may result in death by Carbon Monoxide poisoning. Replace by Date is six (6) years from the date of manufacture.

WARNING

Activation of your CO alarm's audible horn indicates the presence of carbon monoxide (CO) that can kill you. Leave the area immediately!

WARNING

This product is intended for use in ordinary, indoor locations of family living units. It is not designed to measure compliance with occupational safety and health administration (OSHA) commercial or industrial standards. Individuals who are at special risk from carbon monoxide exposure because of age, pregnancy, or medical condition may consider using warning devices which provide audible and visual signals for carbon monoxide concentration under 30 ppm. If in doubt, consult your medical practitioner.

This Carbon Monoxide Alarm Is Not

• Designed to detect smoke, fire, or any gas other than carbon monoxide.

• To be used on an intermittent basis, or as a portable alarm for spillage of combustion products from fuel burning appliances.

NOTE

This carbon monoxide alarm is designed for indoor use only. Do not expose to rain or moisture. Do not knock or drop the alarm. Do not open or tamper with the alarm as this could cause malfunction. The alarm will not protect against the risk of carbon monoxide poisoning when the batteries are dead or missing. The alarm will only indicate the presence of carbon monoxide gas at the sensor. Carbon monoxide gas may be present in other areas.

Important Safety Precautions

• Carbon monoxide is produced by the incomplete combustion of fuels such as wood, charcoal, coal, heating oil, paraffin, gasoline, natural gas, propane, butane, etc.

• Ensure that the alarm can be heard by all those who are intended to hear it. Seek medical help if it is suspected that a user of the camper is suffering from carbon monoxide poisoning.

• If the alarm sounds, make sure to investigate the problem. Ignoring the alarm may result in sickness, injury, or death. (CO may be present even if nothing is seen or smelled by the user.)

• Room spaces should be well ventilated when household cleaning supplies are used as these may cause a false alarm.

• Alarm should be tested once per week

What Is Carbon Monoxide

Carbon monoxide (CO) is a highly poisonous gas that is released when fuels are burned. It is invisible, has no smell, and is therefore, very difficult to detect with the human senses. Under normal conditions, in a room where fuel-burning appliances are well maintained and correctly ventilated, the amount of carbon monoxide released into the room by appliances is not dangerous.

These fuels include: wood, coal, charcoal, oil, natural gas, gasoline, kerosene, and propane.

Common appliances are often sources of CO. If they are not properly maintained, are improperly ventilated, or malfunction, CO levels can rise quickly. CO is a real danger in air-tight campers with added insulation, sealed windows, and other weatherproofing that can trap CO inside.

The following conditions can result in potentially dangerous CO situations

1. Excessive spillage or reverse-venting of fuel burning appliances caused by outdoor conditions, such as:
   • Wind direction and/or velocity, including high gusts of wind.
   • Heavy air in the vent pipes (cold/humid air with extended periods between cycles).
   • Negative pressure differential resulting from use of exhaust fans.
   • Simultaneous operation of several fuel-burning appliances competing for limited internal air.
   • Obstructions in or unconventional vent-pipe designs which can amplify the above situations.
2. Extended use of un-vented fuel burning devices.
3. Temperature increase that can trap exhaust gases near the ground.

Symptoms of Carbon Monoxide Poisoning

The following symptoms are related to CO POISONING:
• Mild Exposure - Slight headache, nausea, vomiting, fatigue (flu-like symptoms).
• Medium Exposure - Throbbing headache, drowsiness, confusion, fast heart rate.
• Extreme Exposure - Convulsions, unconsciousness, heart and lung failure. Exposure to carbon monoxide can cause brain damage and/or death.

WARNING

Many causes of reported CARBON MONOXIDE POISONING indicate that while victims are aware that they are not well, they become so disoriented that they are unable to save themselves by either exiting the building or calling for assistance. Also, young children and pets may be the first to be affected.

WARNING

Test units used in RVs after the trailer has been in storage, before each trip, and once a week while in use. Failure to test units used in RV's as described may remove your protection.

Fire Extinguisher

The fire extinguisher should be checked for charge on a regular basis. Make sure your family, especially the cook, knows how to release the extinguisher storage bracket, and how to properly operate the extinguisher. Check with your local fire department for professional advice on its operation and use if you find the directions on the extinguisher unclear. They will be able and willing to assist you and your family.

Chemical Sensitivity and Ventilation

Chemical Sensitivity

Immediately after the purchase of your new camper, and sometimes after it has been closed for a period, you may notice a strong odor and/or experience a chemical sensitivity. This is not a defect in your camper. Like your home, there are many different products used in the construction of camper, such as linoleum, plywood, insulation, upholstery, etc. Formaldehyde is also the by-product of combustion and numerous household products, such as some paints and coatings. However, campers are much smaller than your home and therefore, the exchange of air inside a camper is significantly less than in a home. These products, when new or when exposed to elevated temperatures and humidity, may off-gas different chemicals, including formaldehyde. This off-gassing, in combination with the minimal air exchange, may cause you to experience irritation of the eyes, nose, and throat and sometimes headache, nausea, and a variety of asthma-like symptoms. Elderly persons and young children, as well as anyone with a history of asthma, allergies, or lung problems, may be more susceptible to the effects of off-gassing.

Formaldehyde

Formaldehyde is a naturally occurring substance and is an important chemical used widely by industry to manufacture building materials and numerous household products. It is also a by-product of combustion and certain other natural processes. Thus, it may be present inside the trailer and some people may be sensitive to it. Ventilation of the unit normally reduces the exposure to a comfortable level.

Your T@G trailer was manufactured using low formaldehyde-emitting (LFE) wood products, use of which is typical in the recreation vehicle industry. Formaldehyde has an important role in the adhesives used to bind wood products used in campers. The wood products in your trailer are designed to emit formaldehyde at or lower than industry guidelines and should not produce symptoms in most individuals.

While LFE wood products typically do not emit formaldehyde at a level that would cause symptoms in most individuals, it is possible, though not likely, for that to occur when the trailer is not properly ventilated. Ventilation is an essential requirement for trailer use, for many reasons. Any effects of formaldehyde can be greatly reduced by actions such as opening windows, opening roof vents, running the air conditioner, or some combination thereof. In addition, the emission of formaldehyde by these products naturally decreases rapidly over time.

nüCamp RV strongly suggests you take measures to properly ventilate your trailer on a regular basis. If you have any questions with respect to proper ventilation of your trailer, please do not hesitate to contact your nüCamp RV dealer.

Ventilation

To reduce or lessen exposure to chemicals from off-gassing, it is of utmost importance that you ventilate your recreational vehicle. Ventilation should occur frequently after purchase and at times when the temperatures and humidity are elevated. Remember, off-gassing is accelerated by heat and humidity.

Open windows, exhaust vents, and doors. Operate ceiling and/or other fans, roof air conditioners, and Alde, and use a fan to force stale air out and bring fresh air in. Decreasing the flow of air by sealing the recreational vehicle increases the formaldehyde level in the vehicle’s indoor air

GENERAL INFORMATION

Welcome to the **nüCamp RV** family and thank you for selecting a **nüCamp RV** product. Congratulations for choosing a lifestyle that will provide you the freedom to enjoy recreation wherever you may choose.

This Owner's Manual is designed as a Quick Reference Guide for the operation and care of your new purchase. For more complete instructions regarding safety, maintenance and operation of the items used in the manufacturing of your RV, carefully read the booklets supplied by the component manufacturers. All information contained in this manual may not relate to your specific model; however, booklets supplied by the component manufacturers and included in your Owner's packet will provide any additional information needed.

Your dealership personnel should be able to answer any questions or concerns you may have regarding your new product. If your dealer is unable to do so, please feel free to contact our Customer Service department for assistance. Your dealership will provide you with the appropriate contact information.

Please carefully read the Limited Warranty in this manual. **nüCamp RV** has no other expressed or implied warranties of any type. You, as the owner, are responsible for providing proper maintenance as outlined in the manual and as set forth in the component manufacturer's booklets.

NOTE:

FAILURE TO PROPERLY MAINTAIN YOUR RV COULD RESULT IN LOSS OF WARRANTY COVERAGE

Several of our component manufacturers carry their own warranties and require separate warranty information to be filed with them. Please read all component manufacturers' owner's manuals provided with your RV and file appropriate individual warranty cards as required.

You have joined an elite group, and as you begin making great memories using your new **nüCamp RV** Camper we wish you many exciting and adventurous days of camping.

Coverage Provided

Within the Warranty Period, **nüCamp RV** is obligated to repair or replace any part covered by this warranty proven defective. In the event of such an occurrence, the Owner should contact the selling dealer for a service appointment. If it is not possible to return to the selling dealer, call the **nüCamp RV** Factory Service Department, and they will provide you with the location of the nearest authorized dealer or repair facility. The cost of transporting the Camper to the dealer or service center shall be incurred and paid for by the Owner.

Owner's Obligation

The purchaser must notify nüCamp RV or a nüCamp RV authorized dealer of any defect promptly upon discovery.

Warranty repairs by a non- nüCamp RV Dealer or service center must be approved by the nüCamp RV Factory Warranty Department prior to any work being started. This is the only warranty given with the purchase of the Camper other than express or implied warranties given by the component manufacturers. Any warranties implied by law are limited to the Warranty Period. Any other warranty, express or implied, not provided for in this Limited Warranty is waived by the Owner, to the extent allowed by law.

Limited Warranty

nüCamp RV warrants to the original end user purchaser ("Owner") of this Camper, to be free of defects in materials and workmanship and for structural integrity, under normal use, with reasonable care and maintenance, for one (1) year from the date of purchase (the "Warranty Period"), subject to the exclusions given below.

Warranty Exclusions

This warranty is limited to only items constructed by **nüCamp RV, nüCamp RV** therefore makes no warranty with respect to component parts constructed or assembled by other manufacturers, including, but not limited to, all electrical devices (TV, sound systems, DVD player, antennas, batteries, etc.), the propane appliances, electrical appliances, Alde system, refrigerators, plumbing fixtures, light fixtures, lights, entrance door and windows. Such component parts may be warranted by their respective manufacturers, and copies of such warranties are included with the Camper.

What Is Not Covered

1. Tires, batteries, range/stove, Alde, refrigerator, air conditioner, toilet, microwave, glass breakage, tents/visor, and other materials, parts and components warranted by persons or entities other than **nüCamp RV**, please refer to the warranties of component manufacturers for terms and conditions of coverage;

2. Accessories and equipment that are working as designed, but which you are unhappy because of the design.

3. Any part or component of the camper that was not manufactured or installed by **nüCamp RV**;

4. Normal deterioration due to wear or exposure, including but not limited to upholstery, flooring rust, corrosion, oxidation, and cosmetic blemishes;

5. Normal maintenance and service items, including but not limited to light bulbs, fuses, lubricants, sealants and seals, and door adjustments;

6. After-market equipment or accessories installed on the camper after completion of manufacture by **nüCamp RV**, or any defects or damage caused by such items;

7. Campers not purchased through an authorized dealer of **nüCamp RV** and campers purchased directly or indirectly through auction, salvage, repossession, or other non-customary sale means;

Defects or damage caused by, in whole or in part, or in any way related to: Accidents, misuse (including off-road use), or negligence; Failure to comply with the instructions set forth in any owner's manual provided with the camper; Alteration or modification of the Camper except such alterations or modifications approved in writing by **nüCamp RV**; Acts of God or other environmental conditions, such as lightning, hail, salt causing rust, or other chemicals in the atmosphere; De-icing agents or other chemicals applied to the Camper; Failure to properly maintain or service the Camper, including but not limited to the maintenance of lubricants, sealants, and seals; Condensation and the results of condensation including water damage and the growth of mold or mildew. Mold and mildew are natural growths given certain environmental conditions and are not covered by the terms of this Limited Warranty; Use of the trailer other than for temporary recreation purposes, including but not limited to use of the trailer for residential, commercial, disaster relief, or rental purposes; The addition of weight to the Camper that causes the total weight to exceed applicable weight ratings, or addition of weight causing improper distribution of the weight of the Camper; Failure to seek and obtain repairs in a timely manner; Failure to use reasonable efforts to mitigate damage caused by defects; Failure to properly ventilate the Camper; Improper electric power supply or improper trailer hookup to other facilities; Acts or omissions of any person or entity other than **nüCamp RV**.

No payment or other compensation will be made for incidental expenses, including, but not limited to, towing, telephone, transportation, lodging, travel, gasoline, loss of pay or indirect or consequential damage including, but not limited to, loss of use of the Camper, inconvenience, damage or injury to person or property, or loss of revenue, which might be paid, incurred, or sustained because of manufacturer's defect covered by this warranty**. nüCamp RV** does not warranty equipment or accessories installed at any dealership or other place of business, or by any other party.

This Limited Warranty is intended to comply with the requirements of both State and Federal laws. Any part of this Limited Warranty in conflict with any law shall be ineffective to the extent of any such conflict. This warranty gives you specific legal rights, and you may also have other rights, which may vary from state to state.

Making a Service Appointment

Always call ahead for an appointment unless you have a true emergency. Monday and Friday are usually the busiest days for the Service department, as well as just before a holiday. Give them ample time to schedule your Camper for service.
When you call to schedule your appointment, have the following information available:

1) VIN or Serial Number containing 17 letters and digits.
2) Type of Unit (example; T@G XL Camper)
3) Date of Purchase
4) Description of Problem
5) Add photos of damage
6) History of repairs and repair center location (where the repairs were performed).
7) A calendar with your schedule noted, for convenience in coordinating a service date that works for you and the repair center.

If you believe a defect covered by this Limited Warranty still exists after an attempted repair by an authorized **nüCamp RV** dealer, you must contact **nüCamp RV** at the following address, warranty@nucamprv.com

nüCamp RV may direct you to an authorized **nüCamp RV** dealer, or may request that you bring your camper to the **nüCamp RV** factory in Sugarcreek, Ohio for repairs. **nüCamp RV** does not control the scheduling of repairs at its authorized **nüCamp RV** dealers, and repairs at the **nüCamp RV** factory may not be immediately available. Therefore, you may encounter delays in scheduling repairs and/or completion of repairs. All costs associated with transporting the camper for any warranty service shall be the sole responsibility of the owner.

Waiting at the Repair Facility

For safety reasons, most insurance policies prohibit non-employee personnel to be in the work area. If it is necessary for you to wait until the repairs are completed, most dealers provide you with a safe, comfortable customer lounge.

Service

Before leaving the factory, every vital part of the trailer is tested for performance. Each test is signed and certified by an inspector. After the trailer arrives on your dealer's lot, all vital parts and systems are again tested. When you take delivery of your new trailer, you will receive a complete check out.

At that time, a specified list of performance checks on your trailer equipment will be conducted, and any deficiencies you have experienced since taking delivery will be corrected

When you require service for your trailer from the **nüCamp RV** Factory Service Center, or a Certified Dealer Service Center, please contact the service manager for an appointment, and inform them if you are unable to keep the appointment date, or wish to change it. Service may be arranged at the Factory Service Center by contacting the Service Coordinator at:

Email: repairs@nucamprv.com

Phone: 844-823-9112 ext. 309

Reporting Safety Defects

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA), in addition to notifying **nüCamp RV**, Inc.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or **nüCamp RV**, Inc.

To contact NHTSA, you may either call the Vehicle Safety Hotline toll-free at 1-888-327-4236 (TTY: 1-800- 424-9153), go to http://www.safercar.gov, or write to:

Administrator,

NHTSA,

1200 New Jersey Avenue, S.E.,

Washington, DC 20590.

You can also obtain other information about motor vehicle safety from http://www.safercar.gov.

Camping

Suggested Pre-Travel Check List

Interior

2. Turn off water pump switch.
3. Check battery water level.
4. Close windows and vents.
5. Shut all interior cabinet doors.
6. Latch refrigerator door. (Seal containers first)
7. Hold down or stack securely all loose, hard, and sharp objects.
8. Turn off interior lights.
9. Zip up shades.
10. Secure and lock all doors.

Exterior

1. Disconnect and stow the electrical hookup cord, and water hookup hoses.
2. Turn off gas at LP tanks.
3. Retract stabilizing jacks.
4. Check hitch for proper attachment.
5. Check safety chains and breakaway switch cable.
6. Fully retract hitch jack. Remove and stow jack wheel or wood block.
7. Check clearance and stoplights.
8. Check lug nuts.
9. Check tires for correct pressure.
10. Adjust tow vehicle mirrors.
11. Pull forward about 50 ft., test brakes, and check site for forgotten objects and cleanliness.

Trailer Equipment and Accessories

1. Water hose, 5/8 in. high pressure, tasteless, odorless, non-toxic, (2 25-ft. sections)
2. Y connection - water hose
3. Power cord adapter, 30-amp capacity
4. 30-ft. electric cord, 30-amp capacity
5. Woodblocks for leveling
6. Wheel chocks
7. Cross-type lug wrench and a torque wrench
8. Quality tire gauge
9. Emergency road warning triangle
10. First aid kit

Overnight Stop

nüCamp RV owners have parked virtually in every place imaginable, from filling stations to farmlands. In time, you'll develop a knack for spying wonderful little roadside locations by turning off the main highway and exploring.

There are many modern parks, including State, County, and Federal parks with good facilities where you might obtain hookups of electrical, water, and sewer connections. Directories are published which describe in detail these parks and tell what is available in the way of services and hookups.

When stopping for the night, your camper is built to be safely parked in any spot that is relatively level and where the ground his firm. Your facilities are with you. You are self-contained. Unless the tow vehicle is needed for transportation, it is not necessary to unhitch. Choose the most level parking spot possible. Stabilizing jacks or blocks may not be required for an overnight stay. However, if you put the jack pad on the hitch jack and run the hitch jack down to take the weight off the tow vehicle's springs, it will provide some stability. If you must park on a slope, park facing downhill. It is easier to level the trailer this way.

Before moving on, check your campsite, both for cleanliness and, to be sure you haven't left anything behind. Turn off the gas supply and make sure everything is properly stowed. Use your pre-travel check list and you are ready for more travel adventure.

WARNING

At each campsite, make sure you have not parked in such a manner as to block the operation of the doors by being too close to trees, fences, or other impediments. Scenic views are one reason for traveling, but don't park so the beautiful lake or steep cliff is just outside your door.

Extended Stay

Since everything you need is right at hand, you are at home wherever you go. When packing for an extended trip, take everything you need, but only what you need.

When you plan to stay in the same place for several days, weeks, or months, you will want your trailer to be as level and steady as possible. To ensure that your trailer is level you can do so by using a small construction level and either set it on the A-frame of the trailer or on the inside of the trailer. (see diagram that follows under Leveling). If a correction is necessary, you must level from side-to-side first. This can be done easily by backing the trailer up onto one or more 2 x 6 boards (see diagram that follows under Leveling). We do not recommend placing tires in a hole for leveling.

Leveling

Level from front to rear by disconnecting the hitch from the tow vehicle, and adjusting the jack up or down until you are level. Block or chock the wheels to keep the trailer from rolling. Use the stabilizing jacks at the two rear corners, as shown in the diagram, to eliminate the natural spring action of the axles.

Stabilizing Jacks

The stabilizing jacks are located at the rear corners of the trailer. Use the manual handle to hand crank the jacks into position. Stabilizers should only be lowered enough to contact the ground.

WARNING

Stabilizing jacks are designed to stabilize the trailer only. Misuse of the stabilizer jacks to level or lift the trailer may result in damage to the jacks and potentially the trailer.

WARNING

Whenever the trailer must be lifted with a jack, as when changing a tire or leveling on very rough terrain, always place the lifting jack under the main frame rail. Never use stabilizing jacks to lift the trailer.

Effects of Prolonged Occupancy

Your trailer was designed primarily for recreational use and short-term occupancy. If you expect to occupy the trailer for an extended period, be prepared to deal with condensation and the humid conditions that may be encountered.

Moisture can condense on the inside surfaces of the trailer during cold weather when relative humidity of the interior air is high. This condition is increased because the insulated walls of a camper are much thinner than house walls. Also, the relatively small volume and tight compact construction of modern camper means that the normal living activities of even a few occupants will lead to rapid moisture saturation. Estimates indicate that a family of four can vaporize up to three gallons of water daily through breathing, cooking, bathing, and washing. Unless the water vapor is carried outside by ventilation, or condensed by a dehumidifier, it will condense on the inside of the windows and walls as moisture, or in cold weather, as frost or ice. It may also condense out of sight, within the walls or the ceiling, where it will manifest itself as warped or stained panels.

Appearance of these conditions may indicate a serious problem. When you recognize the signs of excessive moisture and condensation in the trailer, action should be taken to minimize their effects.

Tips to Controlling Condensation

Allow excess moisture to escape to the outside when:

• Cooking

Avoid dead air spaces by:

• Using a fan to keep air circulating.

• Keep the temperature as reasonably cool during cold weather as possible.

• Allow your trailer to breath; do not make it airtight.

• Allow some warm air to be removed and some cool outside air in.

• In hot weather, starting the air conditioner early will help remove excess humidity from the air while lowering temperatures.

NOTE

Your trailer is not designed, nor intended, for permanent housing. Use of this product for long-term or permanent occupancy may lead to premature deterioration of structure, interior finishes, fabrics, carpeting, and drapes. Damage or deterioration due to long-term occupancy may not be considered normal, and may, under the terms of the warranty, constitute misuse, abuse, or neglect, and may therefore reduce the warranty protection.

Molds

Molds are microscopic organisms that naturally occur in virtually every environment, indoors and out. Outdoors, mold growth is important in the decomposition of plants. Indoors, mold growth is unfavorable. Left unchecked, molds break down natural materials, such as wood products and fabrics. Protect your investment by understanding the potential risks that mold imposes.

Contributing Factors to Mold Growth

For mold growth to occur, temperatures, indoors or outdoors, must be between 40° and 100°F, and must also have a source of moisture, such as humidity, standing water, damp materials, etc. Indoors, the most rapid growth occurs with warm and humid conditions.

Inhibiting Mold Growth

By controlling relative humidity, the growth of mold and mildew can be inhibited. In warm climates, use of the air conditioner will reduce the relative humidity even during colder weather. opening a window during these activities will assist in ventilation. In extremely humid conditions, the use of a dehumidifier can be helpful.

Frequent use of your trailer, or cleaning regularly, are important preventive measures. Additionally, any spills should be wiped up quickly and dried as soon as possible. Avoid leaving damp items laying about. On safe surfaces, use mold or mildew-killing cleaning products. Check sealants regularly, and reseal when necessary to avoid water leaks. Proper preventive maintenance to the trailer and its accessories, as described both in this manual and in accompanying literature, will provide the best protection to the camper.

For more information concerning controlling moisture in the trailer, read Tips to Controlling Condensation in this section.

NOTE

If using a dehumidifier, please read and follow all manufacturer instructions and recommendations for the use and cleaning of the dehumidifier.

Safety

As always, safety should be a top priority. Ensure that you, and everyone traveling with you, can operate the main and rear door rapidly, without light. Contemplate other means of escape in case the designated exit is blocked.

The side windows can be vented to allow fresh air in and stale air to escape, however, the windows were not designed as escape windows. Be sure to keep both doors unblocked for means of escape if necessary.

WARNING

The window operation should be checked before each trip and the latches lubricated with WD-40® or an equivalent lubricant every six month.

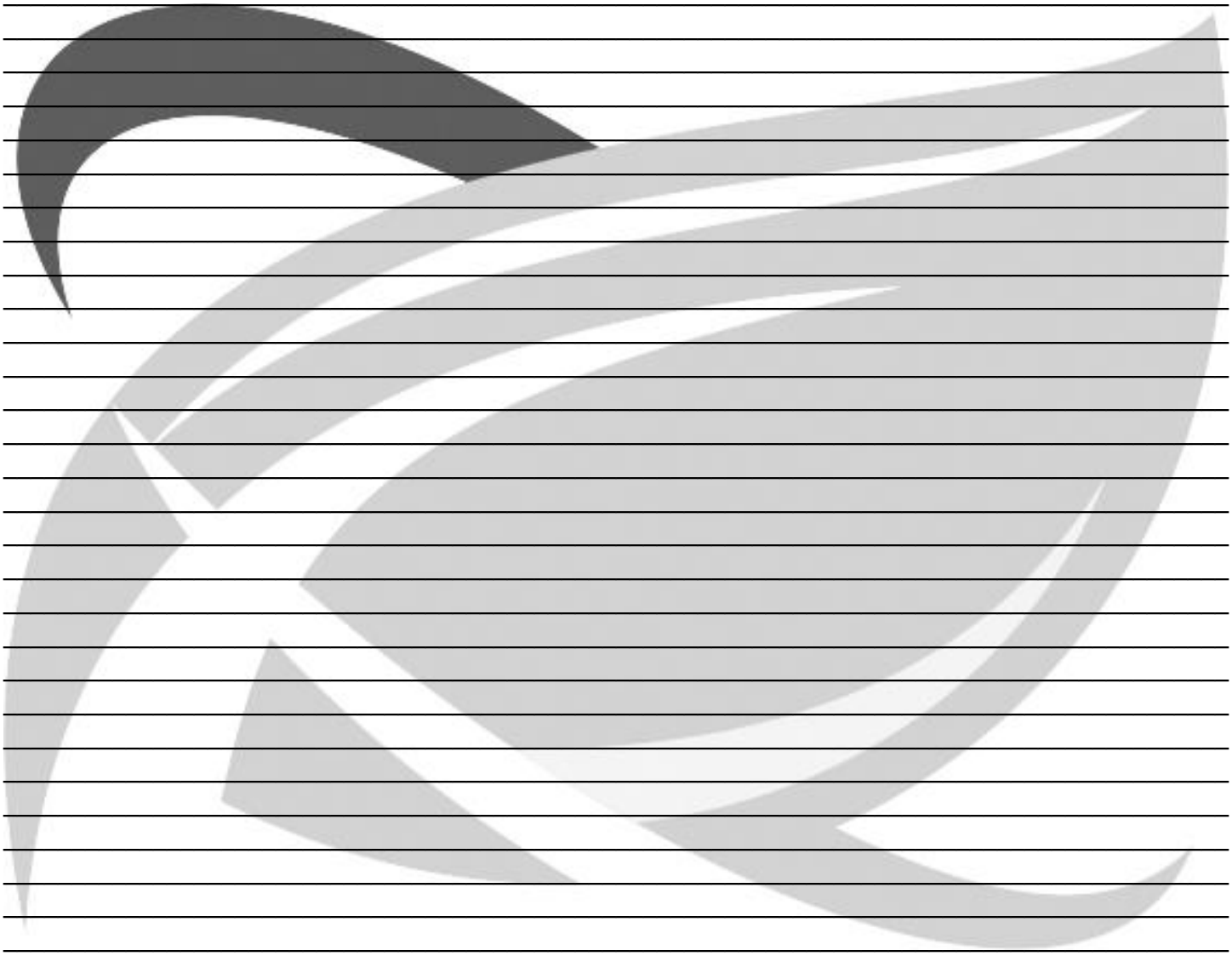
WARNING

Read the directions on the fire extinguisher carefully. If you have any doubts as to its operation, you and your family should practice, then replace or recharge the extinguisher. Your local fire department will be able to assist you and answer any questions.

WARNING

Do not smoke inside the camper. Keep matches out of reach of small children. Don't clean with flammable material. Keep flammable material away from open flame. Always shut off the LPG gas at the tanks when fueling a tow vehicle.

NOTES



Interior

General Information and Cleaning

The interior of all nüCamp RV campers has been designed for comfort, convenience, durability, and appearance. How you use it and how you take care of it, naturally, depends on you. However, if you learn to operate the interior components, and take care of them and the trailer properly, this knowledge will add to your pleasure, as well as the long life of your trailer.

Interior Skin

Interior skin can be cleaned by washing with any mild non-abrasive soap or detergent. Cleaning should be followed by a thorough clean water rinse. Drying the unit with a soft cloth to prevent spots and streaks. Do not use abrasive cleaners or utensils.

Interior Woodwork

The finish on the interior woodwork is a high-quality furniture finish and should be treated as any fine furniture finish. Use a high-quality furniture cleaner which does NOT contain ammonia or bleach. One good choice is Murphy Oil Soap Clean and Shine.

Counter Area

The counter tops are made of a high-pressure laminate and can be cleaned with soap and water, or you can use a common solvent on tough spots. Do not use abrasive cleaners since they could scratch the surface. A protective pad should always be used under hot utensils or pans.

Vinyl Flooring

General Cleaning

Use a soft broom to sweep the floor. A vacuum cleaner may damage the flooring. In most cases, a clean damp cloth or mop will suffice to clean dirty flooring. When necessary, a solution of mild detergent or domestic floor cleaning emulsion can be used to clean the flooring. Do not use a wire brush or nylon scouring pads, furniture polish, spirit-based polish, powder or liquid abrasive cleaners, or bleach or other strong detergents. Scuffs, dirt, and spillages should be cleaned up as soon as possible.

Electrical

Ceiling and Porch Lighting

A switch just inside the passenger door on the ceiling controls the ceiling lights and the porch lights by each side door. There are two adjustable reading lights in the front above the head board, these lights have two settings, if you press the button once you have a blue night light, if you press and hold the button you will have a cool white reading light. the light on the interior of the hatch door is operated by pressing a button on the light its self.

Fantastic Roof Vent

The high-volume roof vent system is designed to quickly exhaust stale hot air and draw in fresh air. It is great to use when the outside temperature does not call for air conditioning, but heat has built up in your trailer.

Operation

1. Open dome approximately 3 in. or more (ceiling fan has a built-in safety switch that will not allow motor to operate unless dome is partially open).

2. Turn 3-speed knob to desired performance level (1-Low, 2-Medium, 3-High, O-Off).

3. Open window(s) or door for airflow. The source of airflow is determined by the number of window(s) or door(s) opened. For best results, close all roof vents and open one window that is the greatest distance from the ceiling fan.

NOTE

Never cover the ceiling fans. This will greatly restrict airflow and increase sound levels.

Cleaning Instructions

1. Turn fan motor off.

2. Remove screen insert.

3. Clean screen with soap and water solution, dab dry with a soft cloth, and reinstall.

Battery/12-Volt System Information

The major portion of electrical power in your camper is 12-volt.

All 12-volt current comes through the battery system. The battery is in the front compartment by the propane tank on the tongue of your trailer.

If you replace a blown fuse and it immediately blows again, do not replace the fuse again until a qualified service technician can correct the problem.

If the replacement fuse holds for a week or more and the gap in the fusible metal is barely melted apart, this usually indicates an overload condition. Reducing the number of lights or appliances used on that circuit at the same time could prevent any further fuse failure.

Battery Disconnect Switch

The battery disconnect switch is used to separate the batteries from the 12-volt distribution panel and converter charging system.

When the switch is turned to ON and the trailer is plugged into a 120-volt shoreline, the 12-volt distribution panel will receive power from the converter and the batteries will be charged through the converter charging system.

When the switch is turned to OFF and the trailer is plugged into a 120-volt shoreline, the 12-volt distribution panel will still receive power from the converter, but the batteries are disconnected from the system. The batteries will not be drained with the switch in the OFF position. The converter will not charge the batteries with the switch in this position.

The charge in the 12-volt batteries can be replenished, depending on the tow vehicle, from the tow vehicle alternator through the 7-way cord. This charge will flow to the batteries regardless of the battery disconnect switch position. Likewise, if on or off, the solar panel is still charging the batteries.

Converter

The converter transforms 120-volt AC into 12-volt DC. The converter/charging system is the interior low voltage electrical system that enables you to use the interior lights, fans, pumps, and 12-volt appliances, whether operating on self-contained battery power or 120-volt city power. The 12-volt light bulbs give off the same light as regular household bulbs, so that when operating on self-contained battery power, everything works normally except the 120-volt convenience outlets and 120-volt appliances. The converter system is designed to maintain constant output voltages regardless of the variances that occur in city power systems.

The converter is energized only when the trailer is hooked up to external AC power.

To test the converter, observe the following:

• Confirm 120-volt power is going into the converter.

• Disconnect the 12+ wire from the master switch.

• Using a voltmeter, check voltage output between heavy gauge positive and negative wires coming out of the converter.

• The voltage should be within 13.8 and 14.0 volts. (The meter of the tester should be calibrated periodically.)

• If the converter is not within these voltages, have it serviced by a qualified technician or replace it.

A label on the inside of the converter door lists the circuits and what each fuse powers.

Converter Operation

The electronic power converter is designed to supply the nominal 12-volt-filtered DC power for all 12-volt operated devices encountered in RV service. Although the converter is an excellent battery charger, the converter does not require a battery to be connected to it for proper operation.

NOTE

When installing a battery (s), always observe polarity. Connecting a battery in reverse polarity will blow the power converter main fuses located on the 12-volt DC distribution fuse block

120-Volt AC Panel Board

The AC panel board section contains the 120 AC branch circuit breakers for your RV. One of the breakers controls the 120-volt power to the 12-volt converter section. This breaker may also control another branch circuit. Check the label next to each breaker for what each branch circuit breaker controls.

The 120-volt circuits may be turned on by setting their breaker handle up, to the ON position, or off by setting the handle down, to the OFF position. To reset the tripped breaker, move handle to OFF then ON.

The system incorporates GFCI breakers that implement an auto self-test functionality. When turned off, these breakers require external AC power to be present, or the AC inverter enabled, before they can be turned back on. If AC power is present from one of these two sources, and the breaker refuses to stay on consult an electrician or certified RV technician.

Fuses and Breakers

Breakers

The distribution panel was designed to use a 30 Amp 120Volt main breaker with branch circuits. Double breakers may be used for the branch circuits. Should a breaker become faulty, replace with the same type breaker only. Use only approved circuit breakers and 12V fuses.

NOTE

When replacing circuit, breakers replace with the same type and rating as the original.

12 VDC Fuses

Each 12 volt DC circuit in the distribution panel was designed for a maximum of a 20-amp automotive style fuse. Should one need to be replaced, be sure to replace it with the same type and Amp rating as originally supplied by nüCamp RV. Replacing it with either a higher or lower Amp fuse could result in the panel not functioning properly.

Reverse Polarity Fuses

The power converter is equipped with reverse polarity fuses, should these fuses “blow” either during the manufacturing process or while connecting the battery, replace with the same type and rating fuse as originally provided with the equipment.

The power converter is not weather resistant nor designed for installation in wet locations. The power converter must be protected from direct contact with water.

120-Volt Electrical System

Shore Power

When your trailer is hooked up to external AC power, the converter system automatically charges the trailer battery(s) with the battery disconnect switch in the ON position and, if the 7-way cord is hooked up and depending on your vehicle, your tow vehicle battery as well. The speed and degree of charge depends on how much power is used for lights and appliances, as only the surplus goes to charging the battery. If you are making an extended stay, then you should keep your trailer hooked up to a 120-volt current if it is available.

While you are connected to the 120-volt receptacle, the wiring is protected by circuit breakers in the breaker panel. The circuit breaker panel for the 120-volt system is in the converter. Open the converter door. In the event of a failure of a 120-volt circuit, first check your trailer circuit breakers and the breaker for the outlet into which your trailer shoreline cord is plugged. If a breaker continues to trip after you have reset it several times, your circuit may be overloaded with appliances or there may be a short in the circuit. Try lessening the load on the circuit. Perhaps an electric griddle, hair dryer, or an electric heater can be turned off. If that does not solve the problem, consult an **nüCamp RV** Service Center.

The 120-volt electrical system provides power to operate the air conditioner, converter, and 120-volt receptacles for portable appliances. The power is carded through the 120-volt city power flexible cord to the 120-volt distribution panel, and then is distributed to each appliance or receptacle.

All wire, components, and wiring methods conform to federal and state requirements.

Converter

The converter system enables you to use the 12-volt lights and equipment whether operating on self-contained battery power or hooked up to 120-volt city power. The 12-volt light bulbs give off the same light as regular household bulbs, so that when operating on self-contained battery power, everything works normally except the 120-volt convenience outlets and 120-volt appliances.

NOTE

When operating with city power, make very certain that the service is 120-volt and not 240-volt.

The converter system is a transformer designed to maintain constant output voltages regardless of the variances that occur in city power systems. The design eliminates the need for complex electronic sensing systems to charge the batteries, minimizing the possibility of failures and greatly increasing its overall reliability.

In some older parks and other locations where three pronged outlets are not available, certain precautions to ensure proper grounding and polarity must be taken. These precautions are listed below:

1. Attach the three-pronged plug to a two-pronged adapter. The third conductor line of this adapter has a short wire lead, that must be grounded.

2. For proper grounding, connect the short ground lead to a grounded outlet box or to a cold-water pipe. When no water pipe is available, drive a metal rod two feet into the ground and attach the ground lug to it, thus, providing the unit with proper grounding.

NOTE

When the three-pronged plug can be used, there will be no problems with proper polarity or grounding with a properly wired shoreline outlet.

Ground Fault Circuit Interrupter

Most states require trailers with exterior 120-volt receptacles and receptacles close to a water sources, such as a faucet, to have a ground fault-circuit interrupter. When properly installed, the GFCI circuit breaker provides reliable overload and short-circuit protection, plus protection from ground faults that might result from contact with a HOT load wire and ground. Each GFCI circuit breaker is calibrated to trip with a ground current of 5 milliamperes or more. Since most persons can feel as little as 2 milliamperes, a distinct shock may be felt if the need for protection exists. However, the shock should be of such short duration that the effects would be reduced to less than the normally dangerous level. However, persons with acute heart problems or other conditions that can make a person particularly susceptible to electric shock may still be seriously injured.

While the GFCI circuit breaker affords a high degree of protection, there is no substitute for the knowledge that electricity can be dangerous when carelessly handled or used without reasonable caution.

WARNING

The GFCI circuit breaker provides protection only to the circuit to which it is connected. It does NOT provide protection to any other circuit.

GFCI(s) are proven lifesavers, however, consumers need to take a few minutes each month to perform this simple test. By acting, you can help protect your family from the risk of electric shock.

GFCI Receptacle

To properly test GFCI receptacles:

1. Push the Reset button located on the GFCI receptacle first to assure normal GFCI operation.

2. Plug a device, such as a night light, with an ON/OFF switch into the GFCI receptacle and turn the product to the ON position.

3. Push the Test button located on the GFCI receptacle. The device should turn off.

4. Push the Reset button, again. The device should come on again. If the device remains on when the Test button is pushed, the GFCI is not working properly or has been incorrectly installed (wired wrong). If your GFCI is not working properly, call a qualified, certified electrician who can assess the situation, rewire the GFCI if necessary, or replace the unit.

NOTE

All GFCI breakers implement an auto self-test function, however, we recommend a manual test be conducted every month.

Appliances

All appliances come with in-depth owner's manuals. Those manuals are included in the delivery case supplied by your dealer. The manuals may contain warnings, cautions, and operating instruction that should be read and followed before operating the appliances.

The information contained in the appliances manuals supersedes any information contained in the **nüCamp RV** camper Owner's Manual on appliances. If you believe contradictory information on appliances is contained in this manual, or if any appliance manual(s) have not been provided with your trailer, contact your dealer, the respective appliance manufacturer, or **nüCamp RV** Customer Service at 330-852-4811

Air Conditioner

The air conditioner operates on 120-volt power, which is supplied through the 30-amp power cord, from an outside 120-volt power service, if equipped. The factory installed air conditioner is a high efficiency, power saver unit.

The air conditioner will provide cooled air for your comfort. However, it is the largest single load of electrical usage. It is important to manage your electrical usage when you have an air conditioner Be sure the air conditioner is OFF before connecting electricity.

1) When the air conditioner has been shut down, wait at least five minutes before restarting.
2) Do not operate without a filter installed.

If your AC unit doesn't turn on check the 20-amp breaker in the converter box. Turn the breaker to OFF then back to ON. If the unit still doesn't turn on consult your air conditioner manufacturer.

NOTE:
Always ensure that the trailer is level before operating the air conditioner as this may lead to condensation, drainage issues and water damage.

Helpful Notes When Using the Air Conditioner;

Keep window curtains closed.
Air conditioner removes moisture from the air and it is normal to have water discharge off the road.

Experience has shown that some RV parks may experience reduced power (low voltage) on days with high heat or humidity, commonly referred to as a "brown out". This condition may result in the air conditioner circuit breaker tripping in your power distribution center. This protects your air conditioner motor from damage and is necessary during low voltage conditions. This breaker tripping is sometimes perceived as a fault in your camper, but it is a necessary "safety valve".

NOTE
Review the air conditioning literature supplied in your owner's packet before proceeding

Refer to the air conditioner manufacturer's users' manual for complete operating and service instructions. Efficiency when using the air conditioning can be increased by closing all windows and curtains and parking your camper in the shade. Air conditioning consumes a large portion of the electric power available in the recreational vehicle and efficient operation can be an important consideration. Even though your recreational vehicle is equipped with 30 or 50 amp capabilities, be aware that some campgrounds may offer less than 30-amp service. Check with the campground before utilizing excessive power, which may create a fire hazard or trip breakers, in either the recreational vehicle or the outside power source.

NOTE:
Always turn off the air conditioner (and all electrical appliances) before disconnecting the camper from its 120Volt AC power source.

NOTE:
If you cover the outside portion of your air conditioner during periods of storage, be sure to remove protective cover before reusing.

Microwave Ovens

Refer to the Certified Performance Checkout sheet, included in your owner's packet, for manufacturer, model, and serial number information.

Range

There is little difference between the operation of home gas ranges and the camper's range. read the manufacturer's directions provided in the owner's packet. Manufacturer's service and parts manuals are also available.

WARNING

An operation manual for the range is provided in the owner's packet. If this has not been provided with your trailer, contact the manufacturer listed to obtain. Their manual contains specialized warnings and cautions that should be reviewed prior to operating the appliance.

Cooler

Review all cooler literature supplied in your owner's packet or stored in the cooler prior to operating.

Exterior

General Information and Operation

Doors

The doors of the camper are manufactured with a built-in, keyed dead bolt and door lock. The door lock is engaged from the outside by use of a key. The dead bolt is engaged from the inside by turning the red knob or from the outside by a key.

A main door hold-back is mounted on the trailer's exterior side skin. The hold-back secures the door to the side of the trailer.

CAUTION

When towing, all locks must be secured. The constant vibration of travel may cause the door to open resulting in possible damage.

Rear Door

The rear door provides access to the rear kitchen area, the hatch door is opened by turning the T-handles, these can also be locked.

Exterior Shower

T@G units are equipped with a exterior shower. Be sure to shut the door when not in use.

City Water Hookup & water fill

The city water hook-up and the water fill are located on the side of the trailer

For consistent water flow and plumbing line safety, a regulator limits pressure to 45 PSI. should be used always. use a tasteless, odorless, and non-toxic high-pressure hose of at least 1/2 in. diameter designed for RV use. The city water inlet is a standard garden hose thread. We suggest you carry two lengths of hose to reach hookups farther away than normal, plus, to have a spare.

After hooking up the hose and turning on the city water valve provided in the park, slowly open a faucet. There will be a lot of spurts and sputtering until all the air is expelled from the camper's system.

L P Gas (LPG)

Fill Valve

The LPG tanks are equipped with fill valve connections RV Type I Acme. The large, green, nylon swivel nut is a right-hand thread and is designed for hand operation only.

The valve features an internal spring-loaded module that will not allow gas to flow from the cylinder until a positive seal has been made at the connection. The valve outlet has 1-5/16 in. Acme threads on the outlet exterior, and female POL, left-handed threads on its interior. This feature allows for connection of the new wrench less, right-handed, Acme RV connection while still accommodating the standard left-handed POL fittings used for filling propane cylinders.

The mating, green swivel nut and brass nipple also incorporate new features: the green nylon nut swivels on a black bushing that is heat-sensitive. Between 240 and 300°F, the bushing will yield (melt) allowing the spring-loaded module in the valve to push the brass nipple back (approximately 1/4 in.), closing the module and stopping the flow of gas from the cylinder. Inside the brass nipple is a flow-limiting device designed to sense excessive gas flow. If an excessive flow is sensed, the flow-limiting device shuts the flow down to a maximum of 10 SCFH (Standard Cubic Feet per Hour) or less. This is also referred to as the bypass flow.

Bypass flow is extremely important in the proper operation of this connection. The flow-limiting device may activate if the cylinder valve is opened quickly. When all appliances are off, the bypass flow allows the pressure downstream from the flow-limiting device to equalize. When pressure is equalized, the flow limiting device will supply

normal flow to the system. Equalization occurs in approximately 5 seconds and, in most cases, goes completely unnoticed. If, however, an appliance is left on or there is a leak or open flow in the system, the bypass pressure will not be able to equalize and allow the flow-limiting device to reopen. Symptoms of this condition would be appliances that light but have lower than normal flame or starve out from lack of gas, a substantial reduction in the flame when another appliance is operating, or pilots that are difficult to light. If this should happen, the following steps should eliminate the condition:

1. Close LPG cylinder valve.
2. Extinguish all flames and smoking materials.
3. Be sure all gas appliances, including their pilot lights, are off.
4. Open LPG cylinder valve slowly. Do not snap open.
5. Wait at least 15 seconds before lighting appliances.
6. If operational difficulties continue, there may be a leak in the system. Immediately close the LPG cylinder valve and have the system inspected by a qualified RV service technician.

WARNING

Leaking LPG may ignite, causing a fire or explosion, which could result in serious bodily injury, property damage, and/or death.

How long a full tank of gas will last is dependent on usage. When you are doing extensive cooking, you will naturally use more gas than you will on the average, with normal cooking

Propane Regulator

Propane is under high pressure in the tank. The purpose of the regulator is to reduce the pressure inside the tank to allow for safe use.

WARNING

- To avoid potential problems, have your propane system checked at least once a year by an authorized service center after each extended trip.
- NEVER test for a leak by lighting a match or having an open flame where you suspect a leak. Take your recreational vehicle to an authorized service center.

Regulator Freeze-Up

The term ‘regulator freeze-up’ is a misleading one. Regulators and propane do not freeze. However, the moisture that can be contained in the propane will freeze as the propane expands and cools passing through the regulator. This freezing of the moisture in the propane can build up and partially or totally block the passage of the propane through the regulator. Freezing can also occur when outside temperatures are low enough to contribute to the freezing of the moisture in the propane. The source of the moisture is varied. It can occur at the refinery or propane bulk plant, in the cars used to transport the propane, or even within your own propane tanks. Moisture in a propane tank can occur when a tank service valve is left open, allowing moist air to enter and become trapped. A two-stage regulator helps reduce the possibility of freeze-up because of its larger orifice size and that heat is being transferred through the walls of two regulators instead of only one.

NOTE:

If freeze-up does occur, shut the propane off at the tank. A frozen regulator may permit propane to flow at high pressure, resulting in leaks at appliances or in the lines. Never attempt to thaw with an open flame. A small light bulb can sometimes be useful to provide heat and aid the thawing process. Once thawed, be sure to take the proper steps to prevent a reoccurrence. Have the system checked by your propane supplier.

WARNING
Your LPG tanks must be filled as directed by the tank manufacturer. Instructions are located on a decal near the fill valve. The decal must not be defaced.

WARNING
The LPG tanks are securely mounted on the front A- frame of your trailer. If these tanks must be removed for service or replacement, it is important that they be reinstalled correctly to prevent any possibility of their falling off or becoming dislodged during travel.

WARNING
Use only the LPG tanks furnished with your trailer. If replacement is required, it must be a bottle of the same size and design.

Basic Rules for LPG Safety

A warning label is displayed in the cooking area reminding you to provide an adequate supply of fresh air for combustion. The amount of oxygen supply in a trailer is limited due to its compact design. When using the cooking appliances, proper ventilation will prevent dangers of asphyxiation. It is especially important that cooking appliances not be used for comfort heating as the danger of asphyxiation is greater when the appliance is used for long periods of time.

WARNING
A warning label has been located near the LPG container. This label reads: DO NOT FILL CONTAINER(S) TO MORE THAN 80 PERCENT OF CAPACITY. Overfilling the LPG container can result in uncontrolled gas flow, which can cause fire or explosion. A properly filled container will contain approximately 80 percent of its volume as liquid LP gas.

WARNING
Do not bring or store LPG tanks, gasoline, or other flammable liquids inside the vehicle because a fire or explosion may result.

WARNING
Portable fuel burning equipment, including wood and charcoal grills and stoves, shall not be used inside the recreational vehicle. The use of this equipment inside the recreational vehicle may cause fires or asphyxiation.

WARNING
Do not store LPG tanks within a vehicle. LPG tanks are equipped with safety devices that vent gas should the pressure become excessive

Twice a year, or after a long storage period, we suggest you take your unit in for a checkup and cleaning of the gas-operated appliances.

If You Smell Gas

1. Extinguish any open flames, pilot lights, and all smoking materials.
2. Do not touch electrical switches.
3. Shut off the gas supply at the tank valve(s) or gas supply connection.
4. Open doors and other ventilating openings.
5. Leave the area until odor clears.
6. Have the gas system checked and leakage source corrected before using again.

NOTES

Towing

Tow Vehicle

When buying a new vehicle to tow your camper, we suggest including towing options offered by most tow vehicle manufacturers. These include such things as a heavy-duty alternator and radiator, heavy-duty springs and shock absorbers, transmission cooler, heavy-duty fan and flasher unit, etc., for the make of the vehicle.
Transmissions may be manual or automatic, but an automatic transmission may prolong your tow vehicle's life and generally does a better job of controlling engine loads than does the average driver using a manual shift.
Having adequate power is very important when considering the purchase of a new vehicle or the trailer-towing capability of your present one. Auto dealers are provided with guidelines to use when helping a customer decide on a tow vehicle. Guidelines are not determined solely by the power output of the engine. The gear ratio of the differential is also a very important part of the guideline.
Inspect the tow vehicle's hitch regularly for loose bolts or nuts, cracked welds, loose ball mounts, worn parts, etc.
New trailer owners often carry more food and other supplies than really needed. Remember that every item you take along is one more thing to stow and adds weight to the total load you must pull. Consolidate items in shelves, lockers, and in the refrigerator. It is better to have one full and one empty locker, than two half empty ones. Special care must be taken not to overload the front and rear ends of the trailer.

Brakes (If equipped)

DEXTER BRAKES

Getting started – setup and adjustment

For proper performance, all new axles should have the following checked at the specified intervals:

- **WHEEL NUT TORQUE:** after first 25 and 100 miles.
- **BRAKE ADJUSTMENT:** at 200 and 3000 miles.
- **TIRE PRESSURE:** Set to manufacturer's requirements.
- **BRAKE SYNCHRONIZATION:** set brake controller per controller manufacturer's directions.

FEATURES:

Electrically actuated brakes have several advantages over other brake actuation systems.

1. Manually adjusted at the controller to provide the correct braking capability for varying road and load conditions.
2. Modulated to provide more or less braking force, thus easing the brake load on the towing vehicle.
3. They have very little lag time from the moment the tow vehicle's brake are actuated until the trailer brakes are actuated.
4. In an emergency, they can provide some braking independently of the tow vehicle.

How to use your electric brakes properly

1. Your trailer brakes are designed to work in synchronization with your tow vehicle brakes. Never use your tow vehicle or trailer brakes alone to stop the combined load.
2. Your brake controller must be set up according to the manufacturer's recommendations, to ensure proper synchronization between the tow vehicle and the trailer. Additionally, you may have to make small adjustments occasionally to accommodate changing loads and driving conditions.
3. Proper synchronization of tow vehicle to trailer brake can only be accomplished by road testing. Brake lockup, shuttering, or uneven braking is quite often due to the lack of synchronization between the vehicle and the trailer being towed, too high of a threshold voltage (over 2 volts), or under adjusted brakes.

4. Before any synchronization adjustments are made, your trailer brakes should be burnished-in by applying the brakes 20-30 times with approximately a 20-m.p.h. decrease in speed, e.g. 40 m.p.h. to 20 m.p.h. Allow ample time for brakes to cool between application. This allows the brake shoes and the magnets to slightly wear-in, into the drum surfaces and removes any oil residue from the drum.

Brake adjustment

Brakes should be adjusted, (1) after the first 200 miles of operation, when the brake shoes and drums have been burnished, (2) at 3000-mile intervals, (3) as use and performance requires. The brakes should be adjusted in the following manner:

1. Jack up the trailer and secure on adequate capacity jack stands. Follow trailer manufacturer's recommendations for lifting and supporting the unit. Make sure the wheel and drum rotates freely.
2. If equipped, remove the adjusting hole cover, if present, from the adjusting slot on the bottom of the brake backing plate.
3. With a screwdriver or standard adjusting tool, rotate the star wheel of the adjuster assembly to expand the brake shoes. Adjust the brake shoes out until the pressure of the linings against the drum makes the wheel very difficult to turn.
4. Then rotate the star wheel in the opposite direction until the wheel turns freely with a slight lining drag.
   NOTE: it is very important to make sure the brakes are adjusted as specified in STEP # 4
5. Replace the adjusting hole cover, if available, and lower the wheel to the ground.
6. Repeat the above procedure on all brakes. For best results, the brakes should all be set at the same setting.

WARNING
Never use your tow vehicle or camper brakes alone to stop the combined load.

WARNING
The braking system should be checked and serviced by qualified, certified technicians only. Failure to do so could result in loss of control of your tow vehicle or the camper, causing damage to property, injury, and/or death.

Breakaway Switch

In the event of an accidental separation of the tow vehicle and the trailer, the breakaway switch will set and lock the trailer brakes for a sufficient length of time to stop the trailer. The switch is activated when the wire attached to it and to the tow vehicle pulls out the small pin in the front of the unit.

When the trailer is connected to the tow vehicle, the breakaway switch loop should be attached to the permanent frame of your hitch. When disconnecting the trailer from the tow vehicle, remove wire loop from the frame. Do not remove the pin from the switch because this will apply the trailer brakes.

WARNING

Do not use the breakaway switch as a parking brake. If the battery should die, the trailer parking brake would no longer be applied. Failure to comply could cause damage to property, injury, and/or death

Loading

When towing a camper, you are subject to new and different challenges on the highway than you may have previously encountered. Towing a camper is no small responsibility and should be undertaken with great care and safety first in mind. An accident with a tow vehicle and camper can have much greater consequences than carelessness with a small car. Like an airline pilot who is responsible for expensive equipment and many lives, you should take your responsibilities as a tow vehicle driver very seriously and learn all you can about doing the job safely and well. Balancing the load and preparing the trailer and tow vehicle are critical to safe handling.

One of the most critical aspects of safely towing a camper is knowing the weights involved and where they are placed. The first thing to determine is how much is being towed and confirming that it is within the capacities of the equipment being used.

Determining where the load is placed is critical to the way your rig will handle on the road.

Know what your camper weighs loaded. Load your camper including water, propane, etc. and take it to a public scale. Weigh each axle of your vehicle. Refer to your axle weight and tire limits to see if you are within a safe range. Total all axle weights, ensuring you are below the Gross Vehicle Weight Rating (GVWR). Make sure your load is balanced. Do not load too much on one side. A balanced load is much easier to tow or drive. Front to back balance is also important. Step back and look at your camper, making sure that there is not too much weight on the hitch, or on the rear of the camper. Secure all items, as loose items can cause damage and become a safety issue.

As cargo is added, removed, or shifts in location, the weight on the axle and hitch will change. Also, the hitch and axle weights will change because of the weight of the LP tank(s) diminishing from use of propane, and/or the transfer of weight because of water in the fresh water tank being used, the reduction in hitch weight may be significant. When loading the trailer, keep the following in mind:

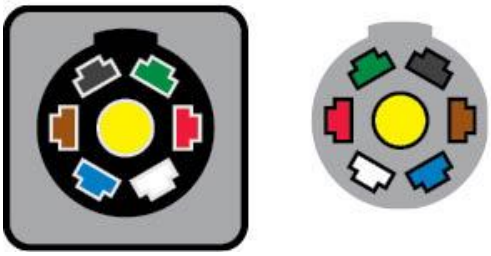
- GVWR
- Gross Axle Weight Rating (GAWR)
- Tire Weight Rating
- Cargo should never exceed these ratings. Your safety depends on not overloading the trailer, trailer axles, and tires

Hitching Up

The process of hitching up your trailer is something that will become almost second nature with practice. The following section includes proper hitch load distribution. Proper training on connecting your trailer to a tow vehicle is essential for safety. Please see your dealer or other qualified personnel for instruction on the proper hitching of your trailer. Safety chain use on the hitch is required in all states.

7-Way Plug

Vehicle Side Trailer Side



1. Black, 12-Volt (+)
2. Green, Clearance Lights/Taillights
3. Red, Left Turn/Stop
4. White, 12-Volt (-)
5. Blue, Brake
6. Brown, Right Turn/Stop
7. Blank

NOTE

The 7-Way Plug is spliced to the main harness in the 12-volt distribution panel in front of the trailer.

WARNING

The tongue weight should be approximately 10 to 15% of the trailer's total weight, but must not exceed 1,000 lb. Under no condition should it exceed the hitch rating. Your hitch installer should provide your hitch rating information.

Towing Tips and Information

Off-Road Towing

When driving in mud and sand, let the momentum carry the rig through. Apply power gently and use as little as possible. Stay in the tracks of the vehicle ahead and keep the tow vehicle in the highest possible gear. If you get stuck, it is best to tow out the entire rig together without unhitching.

When Being Passed

Despite the best hitch, you will notice that whenever a large bus or truck overtakes your rig, the displaced air first pushes the trailer rear slightly to the right and then affects the front. It may be necessary to steer very slightly, momentarily, toward the bus or truck to help compensate for the sway induced by the passing vehicle. Do not apply the vehicle brakes, as this can tend to exaggerate the situation. You may find, however, that briefly applying the trailer brakes with your manual control will help eliminate sway.

On a two-lane road, cars may line up behind you because you travel at a lower speed. It is both courteous and sensible, if you are able, to signal, pull onto the shoulder, and let them pass. Your trailer is designed to be towed easily at any legal speed, so if you are not careful, you may be inclined to forget it is there.

Passing

On freeways or expressways, pick the lane you want and try to stay in it. Always maintain plenty of space between you and the car ahead, at least the length of the tow vehicle plus trailer, for every ten miles per hour. Remember that to pass another vehicle you will need longer to accelerate. You must also allow for the length of the trailer when returning to the right-hand lane.

Backing Up

When backing up, the important thing to remember is to do everything slowly and to correct immediately if you see the trailer turning the wrong way. Concentrate on the rear of the trailer. With your tow vehicle and trailer in a straight line, back up slowly and turn the bottom of the steering wheel in the direction you want the trailer to go. Watch out the window or in the mirror until the rear of the trailer is pointing in the desired direction. Your tow vehicle will be following the trailer in an arc. Straighten the tow vehicle and trailer by turning the steering wheel more sharply, and then, when they are in line, straighten the steering wheel.

Always try to back to your left because the visibility is much better. When you don't make it on the first try, it is usually much easier to pull forward to your original position and start over, or at least pull forward until the rig is straight, and then start backing.

If your spouse or traveling companion normally directs you when backing, they should position themselves forward of the tow vehicle so the driver can easily see them. Their directions should always indicate to the driver the direction the rear of the trailer should go.

A little practice in a parking lot, with the person giving directions, can save a lot of frustration when backing into a campsite.

Controlling Sway or Fishtailing

Sway or fishtailing is the sideways action of a trailer caused by external forces. It is common for trailers to sway in response to strong winds, crosswinds, when passed by or passing a semi-tractor and trailer, or driving downhill.

WARNING

Excessive sway or fishtailing of your trailer can lead to the rollover of the trailer and tow vehicle. Serious injury or death can occur. It is important that you read and understand the information in this section.

Sway or fishtailing of your recreation vehicle can be controlled and is primarily impacted by four factors:

- Equipment
- Tongue Weight
- Driving
- Corrective Measures

Equipment

When hitched together, the trailer and the tow vehicle must be level. The tires of both the trailer and tow vehicle should be in good condition and properly inflated to their recommended pressures.

Driving

This is the most important component. The tendency for the vehicle to sway increases with speed therefore, obey all speed limits and reduce speed during inclement weather or windy conditions.

Corrective Measures

If sway occurs, the following techniques should be used:

1. Slow down immediately, remove your foot from the accelerator. Avoid using the tow vehicle brakes unless there is a danger of collision. Reduce speed gradually whenever possible. If you can do so safely, use the brake hand controller to gently and progressively apply the trailer brakes. This will help to keep the vehicles aligned. Practice using the brake hand controller in a deserted parking lot. Do not wait until an emergency occurs before using it. Location of the brake hand controller is important and should be made easily accessible.
2. Steer as little as possible while maintaining control of the vehicle. Because of natural reaction lag time, quick steering movements to counter trailer sway will cause increased sway and loss of control. Keep both hands on the wheel. Hold the wheel as straight as possible until stability is regained.
3. Once the swaying is under control, stop as soon as possible. Check tire pressures, cargo weight distribution, and look for any signs of mechanical failure. Travel at reduced speeds that permit full control until the problem can be identified and corrected.

WARNING

Do not jam on the brakes or attempt to press on the accelerator to speed your way out of the fishtailing. Both actions make the situation worse and could cause severe injury or death.

NOTES

Maintenance

Maintenance Schedule

WARNING

Failure to maintain your trailer can cause premature and unexpected parts breakage and/or erratic operation that may be hazardous.

NOTE
See appliance manufacturer's literature for further information.

Service to Be Performed	Each Trip	Before Use At Set-Up & Weekly	Monthly
Inspect wiring, connector plug and receptacles	X		
Check exterior lighting	X		
Test propane leak detector for proper operation		X	
Test carbon monoxide detector for proper operation		X	
Test smoke detector for proper operation		X	
Check fire extinguisher			X
Inspect/clean battery cables, terminals, tighten wing nuts			X
Check battery charge (in storage)			X
Check battery electrolyte (in use)			X
Test GFCI (ground fault circuit interrupter)			X
Wash exterior			X
Inspect water pump filter	X		
Bleed propane tanks after filling per instruction label on tank/s	X		
Inspect TV strap for secure fit and that TV tray latch is engaged	X		

Service to Be Performed	Every Six Month	Yearly & After Prolonged Storage
Inspect camper jacks & lubricate per manufacturer's instructions	X	
Inspect roof sealants (required)	X	
Inspect compartment & access doors, moldings & window seals (required)	X	
Inspect all cold, & drain plumbing		X
Sanitize fresh water tank		X
Complete propane pressure check & system check *		X
Clean & lubricate overhead vents		X
Lubricate locks, hinges & hardware		X
Replace smoke detector battery		X
Lubricate slide mechanism along each side of the slide arms		X
Wax Exterior		X

*****Item marked with asterisk requires special equipment and/or qualified LP technician

Maintenance / Repair Schedule

Date	**Maintenance/Service Procedure**	**Service Center Name/Address/Phone**

NOTE
nüCamp RV does not supply a jack with the camper.

WARNING
The maximum speed rating on the tires installed on your trailer is 130 MPH. Do not exceed this rating. Failure to heed this warning could cause catastrophic tire failure resulting in property damage, personal injury, and/or death.

WARNING
Never attempt to change any tire on the trailer without securely chocking the trailer's remaining wheels. Never position yourself in a manner where a raised trailer can come down on you if it should become dislodged from a jack or ramp.

WARNING
When removing aluminum-forged wheels from the spindle, it is very important to mark them to ensure the wheel is placed in the same position of the drum when reinstalling. If the aluminum-forged wheel is to be mounted on a different drum, it is important to sand all loose corrosion from the mating surfaces.

WARNING
Wheel separation can occur:
1. On first trip, tighten wheel nuts at beginning of trip. and at 10, 25, and 50 miles.
2. Thereafter, check wheel nuts before each trip.

3. Following winter storage, check wheel nuts before beginning a trip

4. Following excessive braking, inspect wheel nuts. Do not over torque.

Tire Load and Inflation Information

Maintaining proper tire inflation pressure is essential for both tire safety and performance.

Proper Tire Inflation

The level of air in your tires affects your vehicle's overall performance. A maximum inflation pressure specification is found on the trailer's exterior on a sticker on the front left corner of the trailer, as well as on the original equipment tires.

Air pressure should be checked based on the load on each individual tire. Cold Inflation Pressure should be adjusted to handle the maximum tire load, and all tires on the axle should carry the same inflation pressure. Cold tire inflation pressure is the tire pressure checked in the morning before you drive more than a few miles or before rising ambient temperatures or the sun's radiant heat affects it.

Underinflated Tires

Underinflation brings a higher risk of damage due to road hazards, reduce casing durability, cause a loss in fuel economy, and will result in uneven or irregular tire wear. Severe underinflation brings about an increased risk of tread separation, handling difficulties, and possible tire failure, caused by overheating.

When minimum inflation pressure requirements are not met, tire durability and optimum operating conditions are compromised. Tire inflation pressure should always meet the guidelines for vehicle weight.

Observe the following:

• It may be necessary to inflate your tires at a truck stop or truck service center to achieve adequate air pressure for your trailer's needs.

• Only permanent air seal metal valve caps should be used.

• Be safe - if a tire has been run in a 20% underinflated condition, it must be dismounted and inspected by a trained professional. It should not be aired up without a full inspection or without using a safety cage. Use a calibrated gauge. If your tire is rated for higher inflation pressures, a special gauge will be required designed for larger tires.

• Do not bleed air from warm tires to reduce pressure buildup.

• Do not inflate tires to cold PSI rating beyond rim specifications.

How Overloading Affects Your Tires

Tire pressure is what enables your trailer tire to support loads, thus, overloading can have serious consequences. Too much weight can cause stress on the suspension system components, brake failure, handling and steering problems, irregular tire wear, and possible tire failure. If you discover that your tires cannot handle the load, lighten the weight of the load on your tires.

Tire Care

The most important function of tires is to provide traction while moving, and grip when steering or stopping. The tires on your trailer are designed for highway use and must be properly maintained to maximize tire life, as well to provide a safe mode of transportation.

Tire Care Tips

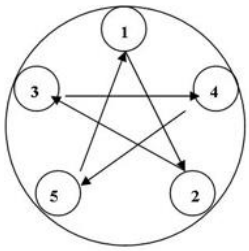
To reduce the risk of tire failure, we strongly recommend the following:

1. Check the pressure in your tires, including your spare, at least monthly when the tires are cool.
2. Never overload your tires. Heed the maximum load-carrying capability of your tires.
3. Check your tires frequently for scrapes, bulges, separations, cuts, or snags resulting from use. See your tire dealer immediately if any such condition is discovered.
4. Never operate your vehicle more than lawful speeds or the maximum speeds justified by driving conditions, or more than speeds recommended for the tires you are using.
5. Make every effort to avoid running over objects that may damage the tire through impact or cutting, such as chuck holes, glass, metal, etc.

Lug Nut Torquing

Trailer wheels must carry much higher loads per wheel than passenger car or truck wheels. Each wheel may carry 1000 pounds and higher. Furthermore, wheels on tandem axle trailers do not steer, and are subjected to very high side load stress whenever the trailer makes a tight turn. When going around corners, especially on slow, tight turns, the wheels are subject to very strong side loads. This tends to flex the wheel and gradually loosen the wheel nuts. Although the materials and manufacturing methods are maximized for this kind of service, these extra loads can cause stress, which can result in flexing and loosening of wheel nuts.

Before each trip and any time a wheel is replaced, be sure to tighten the wheel nuts, following the lug-pattern sequence shown below. If the wheel was replaced, check the torque every 10, 25, and 50 miles.



Five-Bolt

If you notice wheel wobbling, or hear a rattling sound coming from a wheel, especially at low speeds, a wheel lug nut may have come loose. This problem is usually caused by improper tightening, or by faulty or damaged lug bolt threads.

If suspicious of a loose lug nut, safely stop the vehicle as soon as possible. Put up warning devices. Remove the lug caps and check the tightness of all the lug nuts. Tighten all lug nuts to the specified torque, using a torque wrench. If stud threads are damaged or faulty, get professional service help.

NOTE

Use a torque wrench to tighten lug nuts. Tightening by hand or with an impact wrench is not recommended. See the Specification Chart in this manual for wheel torque ratings.

Spare Tire Carrier

The T@G'S spare tire is held on the end of a cable stored under the front of the trailer using a winch system. To lower the spare tire, turn the winch, accessed through the hole in the rear lower trim, counter-clockwise using a 3/4" socket. To secure a spare tire turn the winch clockwise to raise the cable and tire up into position.

CAUTION

The hoist is designed to carry a tire and wheel combination less than 100 Lbs.

CAUTION

The unit is designed for hand operation only, DO NOT use impact type tools to drive the device.

Brakes

Due to normal brake lining wear, the brakes and the controller setting should be checked every six months or 10,000 miles, whichever comes first.

Breakaway Switch

1. Pin
2. Breakaway Switch

To prevent corrosion within the breakaway switch, pull the pin out and spray the inside of the switch through the hole with an electric contact cleaner (such as SpraKleen). Applying a drop of light household oil on the pin and the groove near the base of the pin will allow the pin to operate freely. Immediately reinsert pin. Perform this procedure every 90 days.

CAUTION

Allow no more than 20 to 30 seconds' pin separation as damage to brake magnets may occur.

Battery Storage

During the winter, the batteries should be removed from the trailer and stored in a cool, dry place, where there is no danger of freezing. They should be kept full of water, cleaned, and charged monthly. A battery that can completely lose its charge will never regain its original power or a full charge.

The following recommendations may be helpful if the battery is to be stored:

• When storing the battery in a vehicle or vessel, it is not necessary to leave it on charge. Disconnect the negative battery cable. This will prevent inadvertent discharging of the battery which may lead to a complete discharge.

• Fully charge the battery before putting it in storage and store in a cool place.

• Charge the battery every 30 to 60 days to ensure maximum battery life.

NOTE
A battery will self-discharge 1-3% per month at 80 degrees.

Water Pump

Water Pump Access Locations
The T@G has the pump and filter located under the kitchen sink.

Strainer Cleaning

Locate the water pump and filter housing cap. Turn housing cap counterclockwise to remove cap and carefully pull out strainer. Clean strainer in small bucket of clean water or under running water. If necessary, clean strainer in a detergent solution. Install strainer and housing cap, being careful not to damage housing cap seal.

Winterizing and Storage

When storing your trailer for short or long periods, use the same precautions as you would in your own home regarding perishables, ventilation, and rain protection. In addition, for prolonged storage periods, flush out all the drain lines, also drain the entire water system including the water storage tank. Instructions for draining the water system are explained in the following paragraphs on winterizing.

The main consideration in winterizing your trailer is to prevent the following items from freezing; water pipes, tank, pump, the waste drain system including the traps and tanks, and the batteries.

To completely winterize your camper, follow this procedure:

1. Level the trailer from side to side and front to rear. Open all faucets.
2. Turn the water pump switch to the ON position to expel water from the storage tank
3. Open all drain valves including exterior water service valve.
4. While the water is draining from the system, Unscrew the shower head and place in storage.
5. Turn the pump switch OFF after all water has been removed from the storage tank.
6. Remove exhaust hose from the water pump.
7. Disconnect the water pump inlet connection and turn the pump on until all the water is expelled. This water, about 1/2 cup, can be caught in a towel or rag.
8. Lower the front of the trailer as far as the jack will allow until water ceases to drain, then crank the jack up as high as it will go and allow any remaining water to drain out.
9. Pour a cup of non-toxic RV antifreeze that has been approved and listed by a recognized testing authority such as Underwriter Lab into the sink drain to prevent trap freeze-up.
10. Remove the batteries from your trailer and store in a cool, dry place where there is no danger of freezing. It is very important for optimum life of a battery to check it periodically and to keep it fully charged.

For additional winterizing protection, add a non-toxic antifreeze (approved for drinking water systems) to the water lines using the following procedure

1. Reconnect all lines except the hose to the pump inlet port. Close all drain valves.
2. Attach a length of hose to the pump inlet port. This piece of hose should be long enough for the free end to be inserted into and reach the bottom of the antifreeze container.
3. For antifreeze usages follow manufacturer's instructions found on label of container.
4. Open all water faucets, and shower.
5. Insert hose length into the antifreeze container, turn the pump switch on, and run the water pump until the antifreeze solution fills all water lines.
6. Shut off the pump and close all faucets. Disconnect the hose length from pump inlet fitting and reconnect water system inlet line.

Component Manufacturers Contact Information

These items have Standalone warranty coverage from the Component manufacturer.

(1) Axles (Dexter Axle) phone 574-295-7888 (http://www.dexteraxle.com/contact_us_____)
(2) Tires (Lionshead) Brenda Speicher Email: bspeicher@lionsheadtireandwheel.com Phone: 574-533-6169 Fax: 574-533-6761
(3) Radio/DVD Player/Monitor/Speakers (ASA Electronics) phone 877-305-0445 call for immediate Customer Service Support and 877-845-8750 for Technical Assistance. (http://www.asaelectronics.com//customerservice)
(4) Batteries (Dealer Provided) contact your dealer.
(5) Power Converter (WFCO Distribution) phone 1-877-294-8997 (http://wfcoelectronics.com/contact/)
(6) Air Conditioners (contact the factory at 330-852-4811)
(7) Stoves and Microwaves (Call the factory for contact information phone 330-852-4811)
(8) Cooler phone 1-800-543-1219 (http://www.thetford.com/customer-support/dealer-and-service-center-locator/) info@thetford.com